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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,478	12/10/2003	Yoshihiro Kobayashi	1232-5228	7673

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EXAMINER	
LAM, HUNG H	

ART UNIT	PAPER NUMBER
2615	

DATE MAILED: 12/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/733,478	KOBAYASHI ET AL.	
	Examiner	Art Unit	
	Hung H. Lam	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11/03/05*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 February 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/03/05 has been entered.

Response to Amendment

2. The amendments, filed on 09/30/05, have been entered and made of record. Claims 11 has been canceled and Claims 1-10 and 12-14 are pending.

Response to Arguments

3. Applicant's arguments, see remark page 6, filed 09/30/05, with respect to the rejection(s) of claim(s) 1-10 and 13-14 under Park have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Takizawa.

4. With regarding independent claim 12, the Applicants argue that Sekine does not disclose "the weighting device performs relative weighting processing between adjacent plural focus detection area". However, the Examiner respectfully disagrees. Sekine teaches the weighting

device which performs weighting process in accordance with the main photographing object (Fig. 3a- 3d; Col. 5, Ln. 56 – Col. 6, Ln. 9; Col. 6, Ln. 40-67). Further more, the plurality of blocks representing the photographing object of Fig. 3a-3c are broadly interpreted as "the adjacent plural focus detection area". In addition, Park teaches the limitations of the amended claim 12.

In view of the above, the Examiner believes that the broadest interpretation of the present claimed invention does in fact read on the cited reference for at least the reasons discussed above and as stated in the detail Office Action as follows.

Claim Rejections - 35 USC § 102

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

CLAIM 12 IS FIRST EXAMINED.

6. Claim 12 is rejected under 35 U.S.C. 102(b) as being anticipated by Park (US-5,477,271).

Regarding **claim 12**, Park discloses an image sensing apparatus, which comprises:

an image sensing device (an image sensor is inherently included in a video camera; col. 2, lines 50-54) which generates an image sensing signal by photo electrically converting light from an object (col. 5, lines 1-10);

weighting device (44, Fig. 4) which weights a signal component corresponding to a focus detection area sensed by said image sensing device (detection areas 62 and 64, Fig. 5A).

an evaluation value acquiring device (accumulator 46, error detection 48, Fig. 4) which acquires a piece or pieces of information (col. 5, lines 30-33; col. 6, lines 41-58) required to control a focusing lens from an output from said weighting device (Col. 5, Ln. 20-25; it is inherent that the focus driver 50 is used to control the focusing lens in according to the output of the weighting device 44); and

wherein said weighting device perform relative weighting processing between adjacent plural focus detection areas (Fig. 5A-5B; wherein the peripheral area 64 and the central area 62 are interpreted as the plural adjacent plural focus detection areas; Col. 5, Ln. 64-Col. 6, Ln. 8).

7. Claim 12 is rejected under 35 U.S.C. 102(b) as being anticipated by Sekine (US-5,561,498).

Regarding **claim 12**, Sekine discloses an image sensing apparatus, which comprises:

an image sensing device (sensor 12, Fig. 6a) which generates an image sensing signal by photo electrically converting light from an object (col. 5, lines 1-10);

weighting device (Figs. 6a; distance measuring gate ckt 112) which weights a signal component corresponding to a focus detection area sensed by said image sensing device (col. 5, line 56 – col. 6 line 9; col. 6, lines 40-67);

an evaluation value acquiring device (Fig 6a; AF control 11) which acquires a piece or pieces of information required to control a focusing lens (lens 7) from an output from said weighting device (col. 6, lines 12-32); and

wherein said weighting device perform relative weighting processing between adjacent plural focus detection areas (Fig. 3a- 3d; Col. 5, Ln. 56 – Col. 6, Ln. 9; Col. 6, Ln. 40-67 wherein Sekine teaches the weighting device which performs weighting process in accordance with the main photographing object. Further more, the plurality of blocks representing the photographing object of Fig. 3a-3c are broadly interpreted as "the adjacent plural focus detection area").

Claim Rejections - 35 USC § 103

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 1-10 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park (US-5,477,271) in view of Takizawa (2005/0,030,415).

Regarding **claim 1**, Park discloses an image sensing apparatus which comprises:

an image sensing device (an image sensor is inherently included in a video camera; col. 2, lines 50-54) which generates an image sensing signal by photo electrically converting light from an object (col. 3, lines 1-12);

a weighting device (44, Fig. 4) which weights a signal component corresponding to a focus detection area in a frame (detection areas 62 and 64, Fig. 5A) sensed by said image sensing device (col. 5, line 56 – col. 6 ll. 40);

an evaluation value acquiring device (Fig. 4; accumulator 46, error detection 48) which acquires a piece or pieces of information from an output from said weighting device (Fig. 4; weighting device 44; col. 5, lines 30-33; col. 6, lines 41-58);

wherein said weighting device changes a level of weighting in a second area which is outside of a first area which is placed substantially at a center of the focus detection area (Col. 5, Ln. 1-4; Col. 5; Ln. 55-63; Col. 6, Ln. 1-40; Park teaches a video camera wherein the weighting value in a respective sub-area is set randomly; the weighting value calculating portion 44 determines respective weight values for focus areas. Focus area is regulated such that the central weighting area is emphasized; In Fig. 5A-5B, both central area 62 of the two figures are set to a higher weighting value than the peripheral area 64).

Park teaches the level of the weighting in the second area (Fig. 5A-5B; level of weighting in second area is 0 or 0.5) is approached to a weighting level of the firs area (Fig. 5A-5B; level of weighting in the first area is 1). Park further teaches the plural of weighting step (see table 2 wherein the weighting value are varied from 2, 1, 1/2 and 0).

However, Park fails to explicitly disclose that the level of the weighting in the second area is changed so as to gradually approach to a weighting level of the firs area through a plural steps.

In the same field of endeavor, Takizawa teaches a weighting device wherein the weighting values in the peripheral portion (Fig. 5; weighting value increases from 1 to 3) are gradually approaches the weighting values of the central portion (Fig. 5; weighting value of 4) in a plurality of steps (see Fig. 5 which comprises step 1 to 4). Takizawa further teaches that the main subject photographed is likely to be near the center of a screen and therefore, by more heavily weighting the vicinity of the center of the screen, accuracy of exposure can be improved ([0035]). In light of the teaching from Takizawa, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Park to include the

weighting device of Takizawa in order to heavily weight the vicinity of the center of the screen thereby improving the accuracy of exposure (Takizawa: [0035]).

Regarding **claim 2**, Park in view of Takizawa discloses the apparatus wherein said weighting device (Park: 44) changes in the level of weighting so that the level of the weighting increases from a peripheral portion (Park: 64) to a central portion of the focus detection area (Park: col. 6, lines 1-40; the weighting value in the central portion 62 of Figs. 5A-5B is set at a greater value than the peripheral portion 64; weighting value in the sub-area are set randomly and varied in according to the Shift-Left/ Right -Shift control signal of tables 1-2).

Regarding **claim 3,** Par k in view of Takizawa discloses the apparatus wherein said weighting device independently sets the level of weighting in horizontal and vertical directions of the frame (Park: Col. 5, Ln. 1-4; Col. 6, Ln. 1-40; the weighting value 1, 0.5 and 0 of in Figs. 5A-5B are set randomly in horizontal and vertical directions corresponding to the Shift-Left/ Shift- Right control signal of tables 1-2).

Regarding **claim 4**, Park in view of Takizawa discloses the apparatus wherein the focus detection area comprises a plurality of focus detection areas (Park: col. 4, lines 66-67; col. 5, lines 1-5), and said weighting device (Park: 44) performs relative weighting between the adjacent focus detection areas (Park: col. 5, lines 55-64; col. 6, lines 1-40; Figs. 5A-5B).

Regarding **claims 5-8**, the claims are method-claims corresponding to the apparatus claims 1-4, respectively. Therefore, claims 5-8 are analyzed and rejected as previously discussed with respect to claims 1-4.

Regarding **claim 9**, Park discloses a program causing a computer to execute an auto focus method defined in claim 5 (col. 7, lines 1-5).

Regarding **claim 10,** Park discloses a storage medium computer-readably storing a program defined in claim 9 (col. 7, lines 1-5; it is inherent that a storage medium must be included for storing a controlled software).

Regarding **claim 13,** Park in view of Takizawa discloses the apparatus further comprising a driving device (Park: focus driver 50, Fig. 4) which drives a focusing lens to an in-focus point (Park: col. 6, line 58-62) on the basis of a signal acquired by said evaluation value acquiring device (Park: col. 6, lines 40-62).

Regarding **claims 14**, the claim is a method claim corresponding to the apparatus claim 13, respectively. Therefore, claim 14 is analyzed and rejected as previously discussed with respect to claims 14.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung H. Lam whose telephone number is 571-272-7367. The examiner can normally be reached on Monday - Friday 8AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's primary, David Ometz can be reached on 571-272-7593. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HL
11/28/05

DAVID OMETZ
SUPERVISORY PATENT EXAMINER